

South Bay lawmaker, activists claim AQMD study of toxic acid used at Torrance refinery is flawed

By Nick Green, Daily Breeze

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A leading South Bay lawmaker and critic of safety at the former ExxonMobil refinery in Torrance has renewed his criticism of a regulatory study aimed at discovering whether a commercially viable alternative to the use of highly toxic hydrofluoric acid exists.

In his second letter in the past three months to the South Coast Air Quality Management District, which is conducting the study, Rep. Ted Lieu, D-Manhattan Beach, accused the agency of failing to look at whether the use of the potentially deadly acid with a 10 percent additive is safe.

“The failure to do so along with an evaluation of on-site safety measures in place intended to minimize a major spill or release of the modified hydrofluoric acid undermines the intent of the entire study,” Lieu contended in a letter sent to the agency Wednesday and made available exclusively to the Daily Breeze.

“The entire way SCAQMD is going about this study is backwards,” Lieu wrote. “And one of my fears is that by intentionally failing to address the question of safety, SCAQMD is going to

produce a study that is at best irrelevant and at worst used by some to maintain a status quo that could be extremely dangerous to the community.

“I am at a loss as to why SCAQMD is refusing to address the basic question of public health and safety of MHF with only 10 percent additive,” Lieu added. “I hope it is not because SCAQMD intentionally designed a study to arrive at a predetermined conclusion of preserving what could be a catastrophic status quo.”

The additive, called sulfolane, is intended to block the formation of a toxic ground-hugging cloud the acid forms at room temperatures by turning into a less dangerous liquid that falls to the ground via a process dubbed “rainout.”

The cloud has the potential to kill or injure tens of thousands in the densely populated neighborhoods surrounding the refinery.

But experts say that at the low level of 10 percent additive, there is little evidence that the supposedly modified HF is any safer than unmodified HF.

“If 10 percent or 20 percent sulfolane is being used, there is very little difference between HF and MHF in the hazard it presents in terms of concentration and travel distance downwind,” said Ron Koopman, a retired expert in the field who conducted ground-breaking experiments with HF on behalf of the oil industry in the 1980s.

“At 30 percent, there is approximately 80 percent rainout of MHF, (meaning) for example, only 20 percent travels downwind, while at 10 percent there is only 10 percent rainout, which means that 90 percent of the MHF travels downwind. This is a much bigger hazard.”

Lieu, along with Rep. Maxine Waters, D-Los Angeles, initially criticized the scope of the study in May in a letter to Wayne Nastri, acting executive officer with the AQMD.

In response, Nastri maintained the safety of MHF and the effectiveness of safety measures in place at the Torrance refinery now owned by PBF Energy was not within the scope of the study, which he maintained was much broader in nature.

“Once this study is completed and feasibility and commercial availability of various alternatives are provided, we can evaluate what are the appropriate next steps,” Nastri wrote.

The Torrance Refinery Action Alliance has similarly taken the AQMD to task over the study for many of the same reasons as Lieu, including its response to Lieu’s initial letter.

In a July 19 letter to Nastri, TRRA President Sally Hayati pointed out that the patent for modified HF specifically pointed out that “HF may be used in combination with up to about 50 percent of various additives which may be present either to reduce the aerosol-forming tendency of HF ... or to modify the properties of the HF so that any accidental release may be more readily controlled.”

That's far higher than the 10 percent additive being used in Torrance. At 50 percent or so, ExxonMobil found that MHF simply doesn't work in the production process for refining crude oil, Hayati wrote.

"This explains why Mobil promised to use 50 percent additive in 1990 ... but quietly slashed it to 10 percent in 1998," Hayati wrote. "MHF is 90 percent HF and scarcely different from HF in airborne toxic cloud formation.

"MHF is not 'safer' than HF, only marginally less deadly